;Order Number MAC0705001CE

Service Manual

Vacuum Cleaner

MC-UG471-00

Model	MC-UG471-00
Power Source	AC 120V (60 Hz)
Power Consumption	12.0 Amps
Cord Length	25 Ft.
Motor Protector	Yes
Height Adjust	Auto
Weight	14.5 lbs.

Specifications are subject to change without notice for further improvement.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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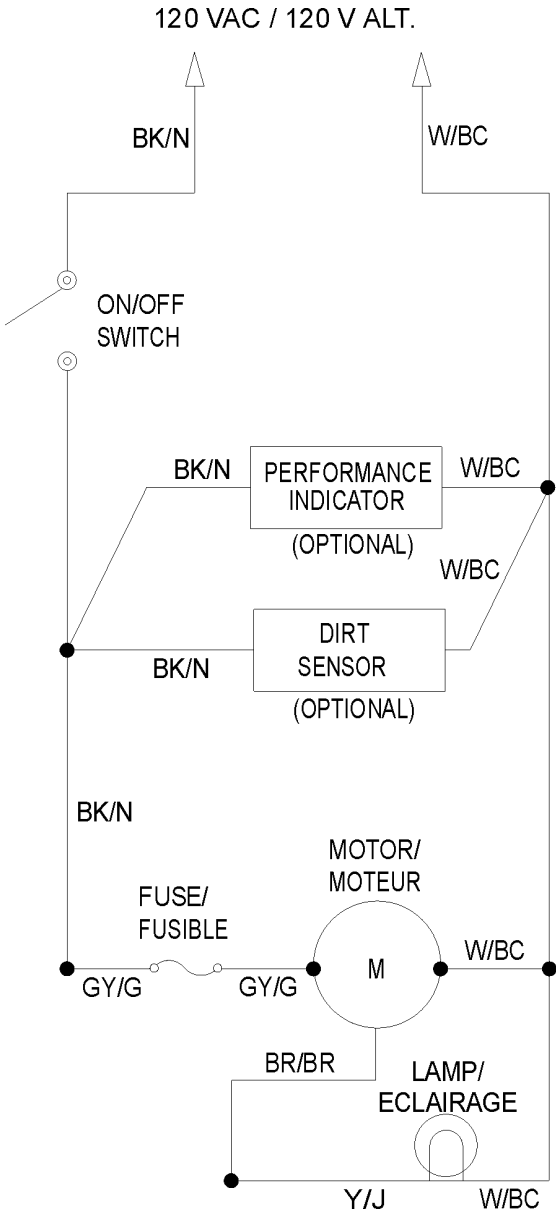
1 WIRING DIAGRAM AND DRAWING

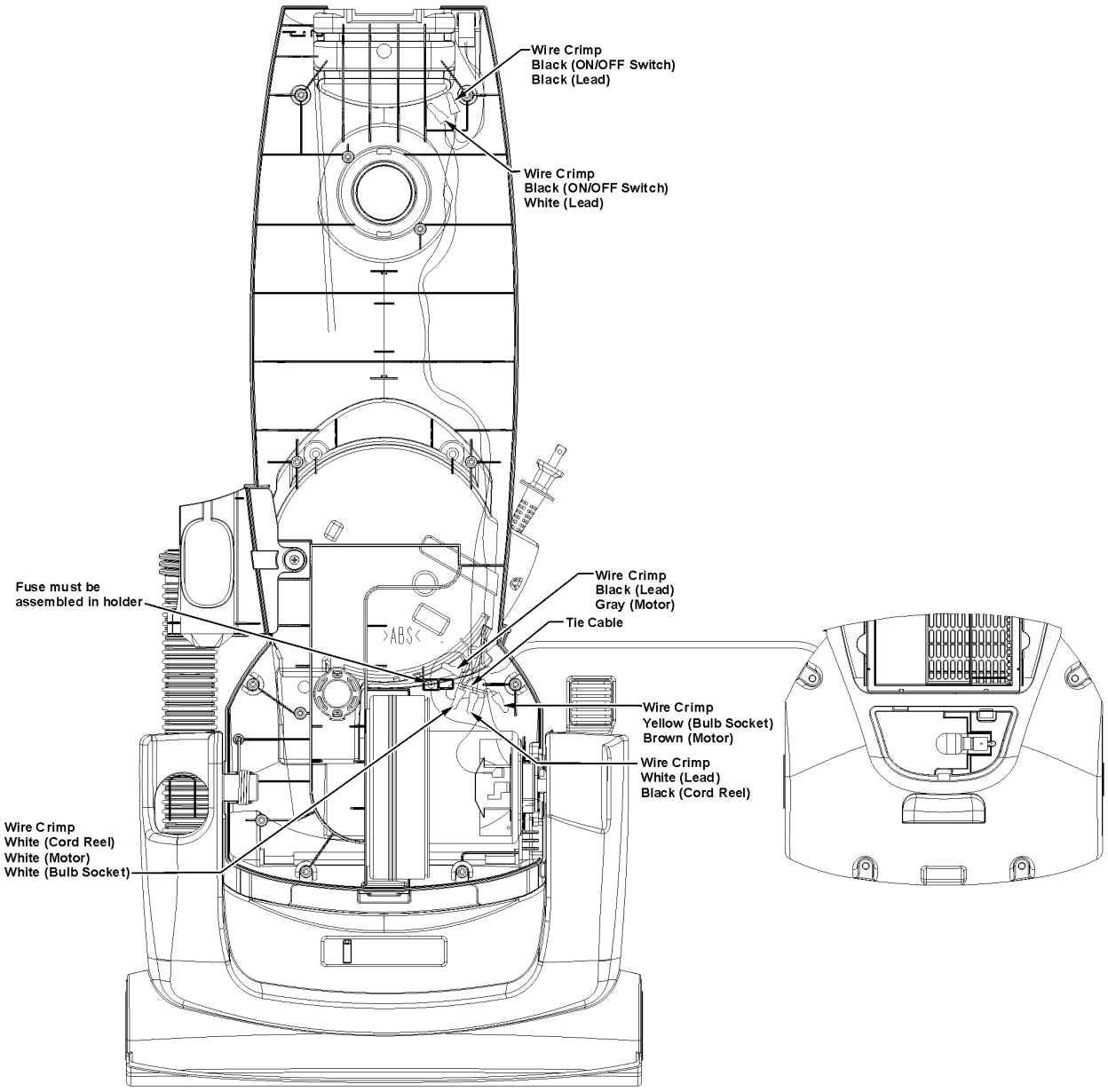
1.1. Wiring Diagram



1.2. Pictoral Diagram

NOTE:

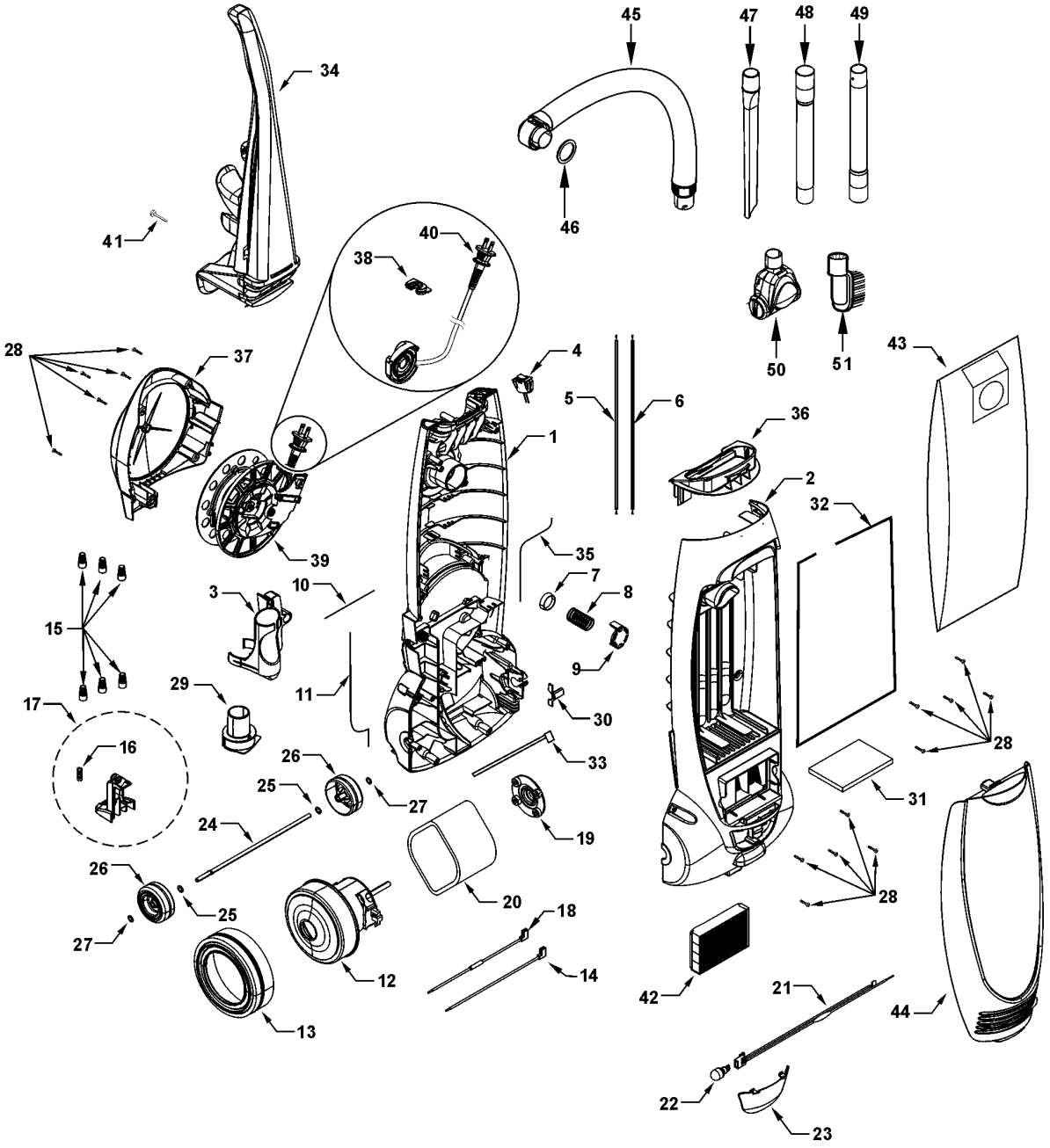
For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.



2 EXPLODED VIEW AND PARTS LIST

2.1. Body

2.1.1. Exploded View

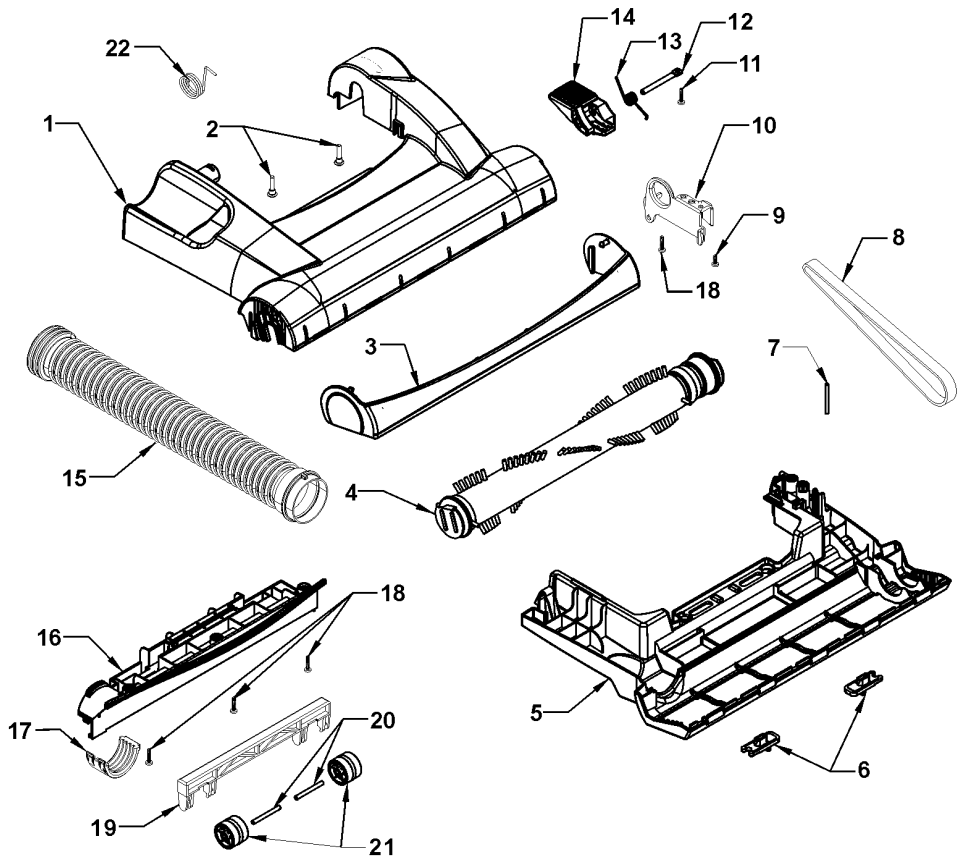


2.1.2. Parts List (Body)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC40KCRBZV07	Dust Compartment	1	
2	AC60KCRBZR0W	Dust Cover	1	
3	AC70PBXZZV07	Wand Holder	1	
4	AC98EARFZ0U	ON/OFF Switch	1	
5	AC43GBJAZ000	Lead Wire - White	1	
6	AC38GBJAZ000	Lead Wire - Black	1	
7	AC69KJMZV07	Protector	1	
8	AC70KBKFZK00	Protector Spring	1	
9	AC68KAJDZV07	Protector Cover	1	
10	AC39ACSCZV00	Body Packing Right	1	
11	AC40ACRAZV00	Body Packing Left	1	
12	AC92FCHPZ000	Motor	1	
13	AC02FCHPZ000	Motor Support	1	
14	AC43GAWYZ000	Lead Wire	1	
15	AC44DCNZZ000	Crimp Connector	6	Shipped 10 per package
16	AC47NATCZ000	Cord Reel Spring	1	
17	AC94NCRAZY05	Brake Lever Assembly	1	
18	AC99WCHRZ000	Lead Wire Assembly	1	
19	AC03FCHPZ000	Motor Support	1	
20	AC99GAMMZ00	Noise Suppressor	1	
21	AC93HCHRZ000	Bulb Socket	1	
22	AC28GBKHZ000	Bulb	1	
23	AC21HCRAZ000	Window	1	
24	AC16CUSZ00	Wheel Shaft	1	
25	AXWG6E115FY	Washer	2	Shipped 10 per package
26	AC01CVZV07	Wheel	2	
27	AC74SUSZ00	Wheel Stopper	2	Shipped 10 per package
28	AXTN4+16BFY	Screw	10	Shipped 10 per package
29	AC52PBXZZV06	Connector Pipe	1	
30	AC78NZAZ000	Plastic Holder	1	
31	AC37KCRBZ000	Secondary Filter	1	
32	AC66KCRBZ000	Dust Compartment Packing	1	
33	AMC596-702	Wire Tie	1	Shipped 10 per package
34	AC95BCRAZV07	Handle Assembly	1	
35	AC39ACSDZV00	Body Packing Right	1	
36	AC66PCRAZV07	Tool Caddy	1	
37	AC36NCRAZV06	Cord Reel Cover	1	
38	AC14NCRAZV06	Cord Guide	1	
39	AC99NCRAZV06	Cord Reel Assembly	1	
40	AC98NCRAZ000	Contact Disc Assembly	1	
41	AC73BCJUZ000	Handle Screw	1	
42	AC38KBRMZ000	Exhaust Filter	1	
43	AC16KBYTZ000	Dust Bag	1	
44	AC48HDDHZRUW	Cover	1	
45	AC84PCRAZV06	Hose Assembly	1	
46	AC64HAMMZ00	Packing	1	
47	AC60RZFZVU6	Crevice Tool	1	
48	AC40PBRKZV06	Extension Wand	1	
49	AC40PBRLZV06	Extension Wand (With Tabs)	1	
50	AC80SCXZZV07	Air Turbine	1	
51	AC88RYUZV06	Dusting Brush	1	

2.2. Nozzle Housing

2.2.1. Exploded View

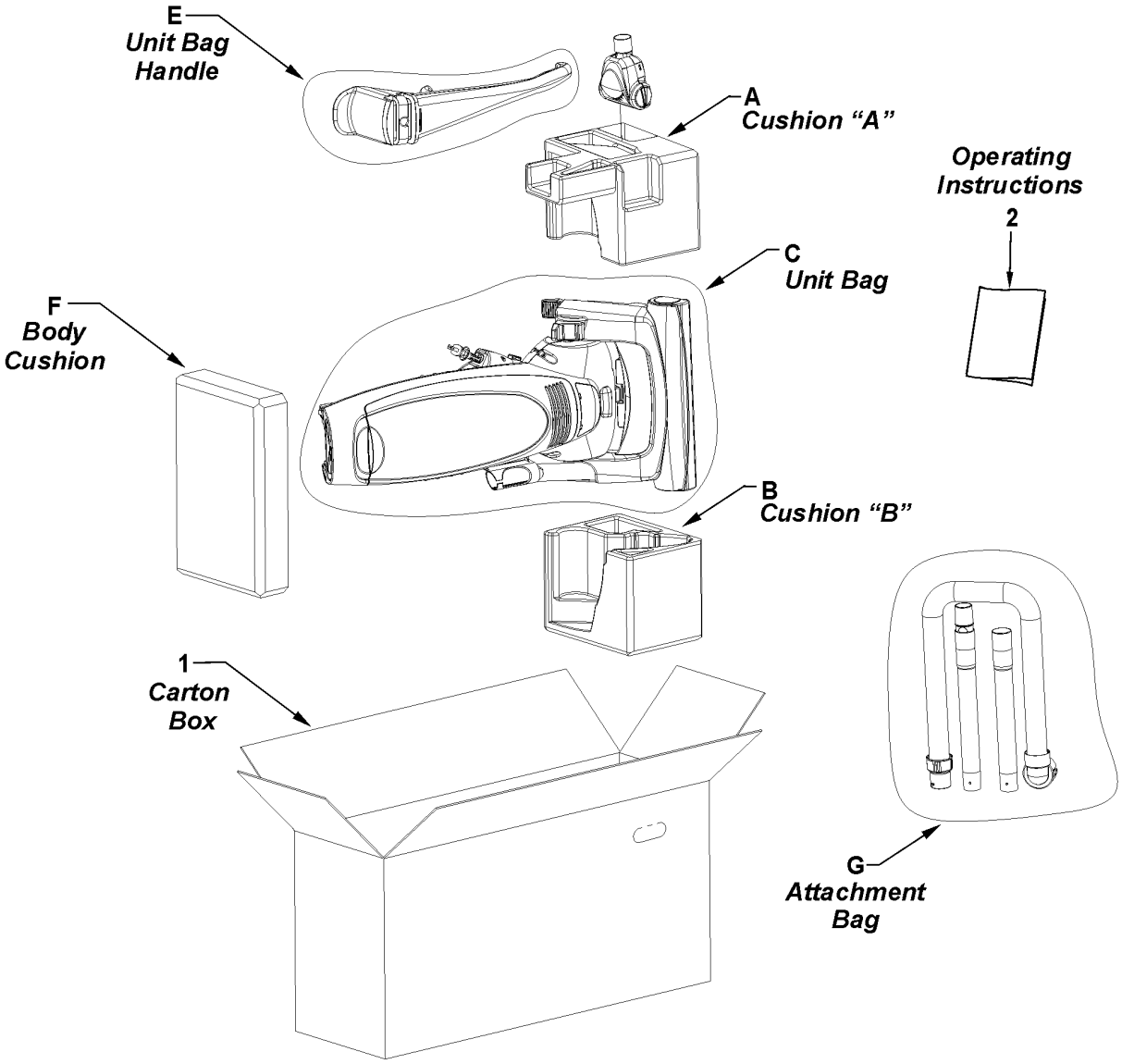


2.2.2. Parts List (Nozzle Housing)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC01ADDHZRUW	Nozzle Housing	1	
2	AMC68A-V30	Screw	2	
3	AC10ACKPZV06	Furniture Guard	1	
4	AC84RCKPZ000	Agitator	1	
5	AC27ACRAZV07	Lower Plate	1	Shipped 10 per package
6	AC68NCRAZV06	Latch	2	
7	AC43SAFXZ000	Belt Guard	1	
8	AC28SCZPZ000	Belt	1	Shipped 10 per package
9	AXTN4+10BFY	Screw	1	
10	AMC43A-2V0	Frame	1	
11	AXTN4+16BFY	Screw	2	
12	AMC51A-V30	Pedal Shaft	1	
13	AC58AAFVZ00	Pedal Spring	1	
14	AC47A2VZV06	Pedal	1	
15	AC34PCRAZV06	Nozzle Hose	1	
16	AC02ACRAZV06	Upper Body	1	
17	AC12ACRAZV06	Upper Body Cap	1	
18	AXTN4+16BFY	Screw	3	Shipped 10 per package
19	AC61KDDHZV06	Nozzle Roller Cam	1	
20	AC16CNXZ00	Roller Shaft	2	
21	AC90QNGZV06	Wheel	2	
22	AC40RCKPZ000	Floor Nozzle Spring	1	

2.3. Packing Materials

2.3.1. Exploded View



2.3.2. Parts List (Nozzle Housing)

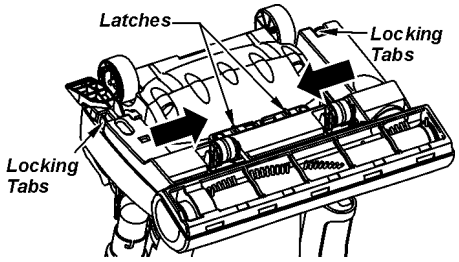
Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC61ZDDHZ000	Packaging Assembly	1	Includes items A-G
2	AC01ZDDHZ000	Operating Instruction	1	

3 REPLACEMENT INSTRUCTIONS

3.1. Lower Plate Replacement

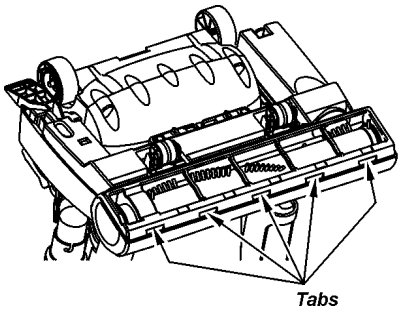
3.1.1. Removal

1. Disconnect power cord from electrical outlet, and place on paper to protect the floor surface. Place vacuum cleaner in the full upright posiiton.
2. Turn the unit over so the agitator and nozzle base are facing upward.
3. Locate the two latches and the two locking tabs which secure the base plate.
4. To remove the nozzle base, press the two latches inward.
5. Push in on the locking tabs toward the center of the vacuum cleaner.
6. Rotate the nozzle base away from the nozzle. The sides of the nozzle base need to be pulled slightly outward to clear the wheels.

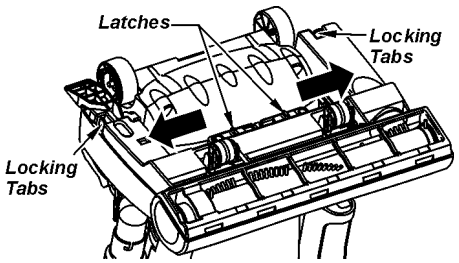


3.1.2. Installation

1. To re-attach the nozzle base, place the vacuum cleaner in full upright position. Insert the tabs into the slots along the front edge of the base. Lower the nozzle base to its original position.
2. As the base is lowered the inner areas will brush against the dust compartment wheels. A gentle pull outward may assist in reassembly.



3. Press the nozzle base down until the two locking tabs snap into place .
4. Fasten the lower plate by pushing the two (2) latches outward.



5. Return the vacuum cleaner to the upright position before plugging into the electrical outlet.

3.2. Agitator Assembly Replacement

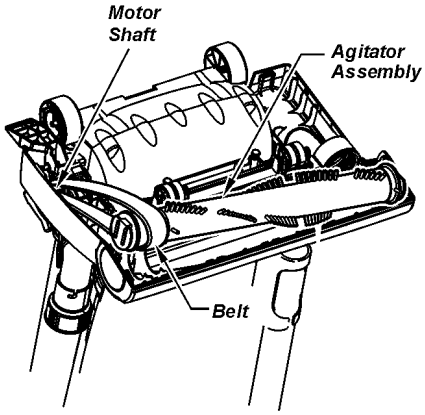
3.2.1. Removal

1. Remove the lower plate as outline in NOZZLE BASE REMOVAL/INSTALLATION.
2. Carefully remove any residue that may exist in the belt area. If the belt is still attached to the motor shaft, there will be tension on the agitator. If the belt is not broken, remove it from the motor shaft before lifting the agitator.
3. Carefully lift the one end of the agitator and then lift the other end.

3.2.2. Installation

1. Place the belt around the motor shaft.
2. Place the belt around the agitator pulley on the agitator assembly.

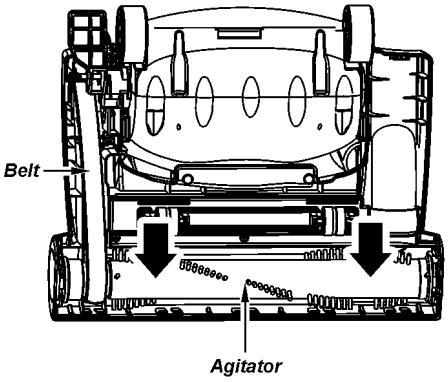
   NOTE: There is a place for the belt to fit on one end of the agitator assembly only. This is the agitator pulley.
3. Insert the new agitator assembly back into the nozzle housing by placing the side opposite the belt partially into the slot. The small tabs should be aligned against the nozzle and the other against the lower plate. This will hold the agitator in place and leave both hands free to place enough tension on the belt to allow that side of the agitator to return to the nozzle housing slot.



   NOTE: Care must be taken due to the belt tension during reassembly.
4. Use both hands to pull the belt tight, and slide the agitator assembly firmly into the slots on each end of the nozzle

housing.

5. Press firmly, checking to see that each end is completely inserted.
6. Check to see that the belt is centered in the belt groove.
7. Rotate the agitator assembly by hand to insure nothing rubs and check for correct assembly.



8. Replace the lower plate as outlined in the LOWER PLATE REMOVAL/INSTALLATION section.

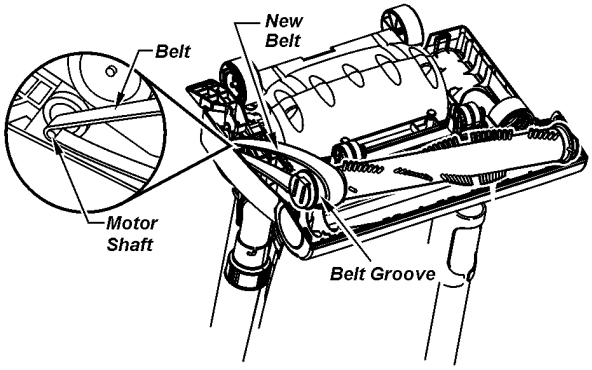
3.3. Belt Replacement

3.3.1. Removal

1. Remove the lower plate as outlined in LOWER PLATE REMOVAL/INSTALLATION section.
2. Remove the agitator assembly as outlined in the AGITATOR ASSEMBLY section.
3. Remove old belt.

3.3.2. Installation

1. Place the new belt around the motor shaft.

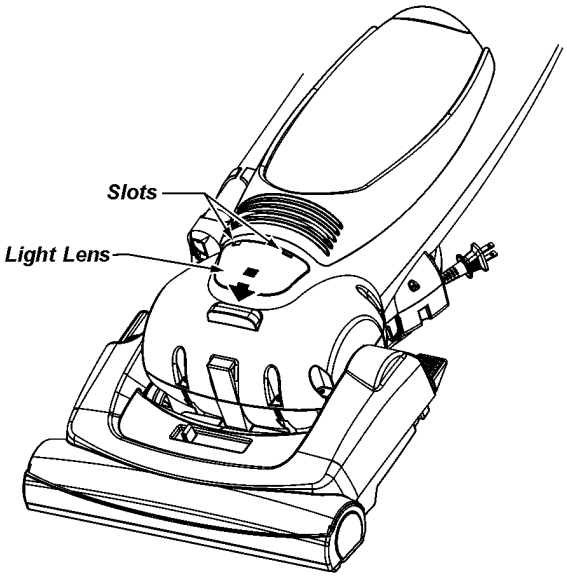


2. Install the agitator assembly as outlined in the AGITATOR ASSEMBLY section.
3. Install the lower plate as outline in LOWER PLATE REMOVAL/INSTALLATION section.

3.4. Bulb Replacement

3.4.1. Removal

1. Ensure ON-OFF switch is OFF and disconnect power cord from electrical outlet.
2. Press handle release pedal and rotate the handle down so the vacuum cleaner is laying flat on the floor.
3. Pry out light lens at slots. Remove old bulb from the socket by pulling from socket.



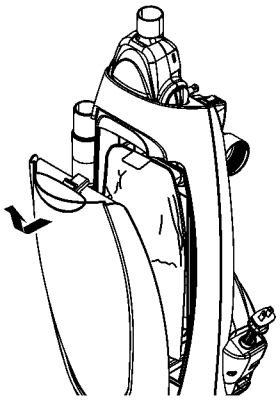
3.4.2. Installation

1. Replace bulb by pressing into socket. Only use a bulb rated 13 V AC-9 Watts.
2. Reinstall light lens by snapping into place.
3. Return the vacuum cleaner to the upright position.

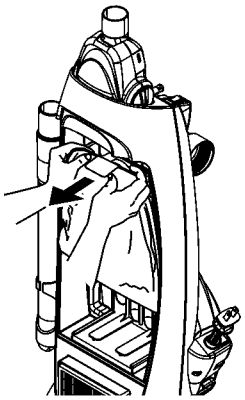
3.5. Motor Replacement

3.5.1. Removal

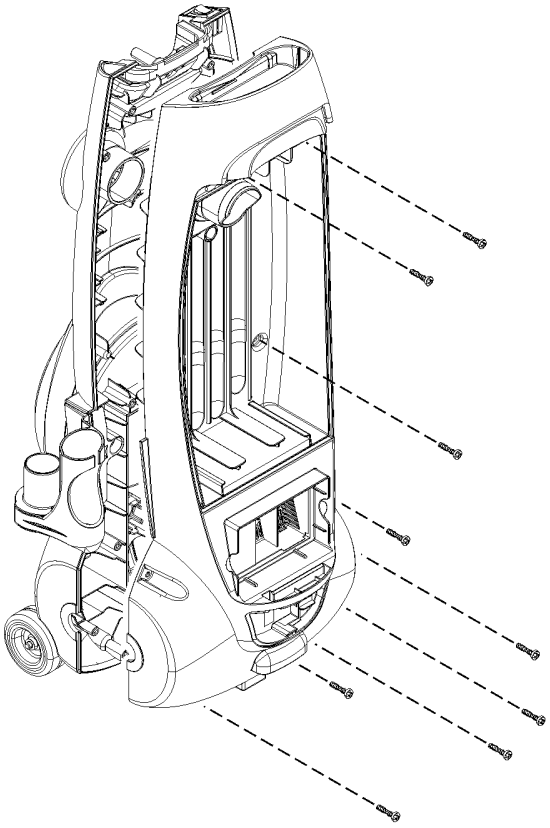
1. Pull outward on the cover grip, located near the top of the dust cover and remove the cover.



2. Grasp the dust bag collar and pull gently, carefully removing the dust bag.



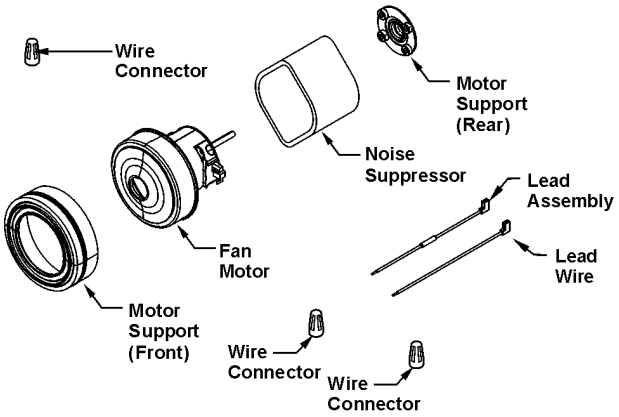
3. Remove light lens, bulb, and bulb socket. See HEADLIGHT BULB REPLACEMENT.
4. Remove 9 screws from dust cover.



5. Disconnect the motor leads and remove the motor.
6. Remove the motor support rear, noise suppressor, and the motor support front.

3.5.2. Installation

1. Reinstall motor support rear, noise suppressor, and the motor support front.

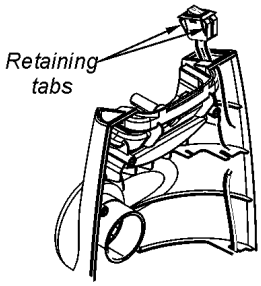


2. Place the motor back into the dust compartment with the tabs on the motor support (rear) aligned parallel to the front edge of the dust compartment.
3. Rewire per the Pictorial Wiring Diagram and Wiring Management Drawing.
4. Replace the dust cover and the nine (9) screws.
5. Install light lens, bulb, and bulb socket. See BULB REPLACEMENT.
6. Install dust bag on bag collar and install cover.

3.6. On-Off Switch Replacement

3.6.1. Removal

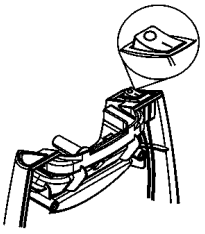
1. Remove the cover and dust cover as outlined in MOTOR REPLACEMENT section to expose the electrical connections fo the ON/OFF switch.
2. Cut wires just below the wire connectors.
3. Remove the ON/OFF switch, (for ON/OFF switch replacement) by depressing the switch retaining tabs while pushing up out of the dust compartment at the same time.



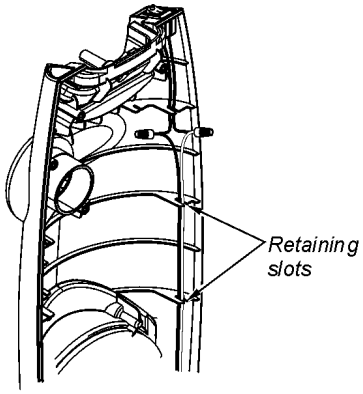
3.6.2. Installation

1. Insert new ON/OFF switch into opening in the dust container until the two retaining tabs snap into place.

   NOTE: Note the direction of the ON/OFF switch as illustrated.



2. Connect wires from the ON/OFF switch to lead wires.
3. Insert wires into retaining slots.



4. Install dust cover and cover.

NOTE: For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.

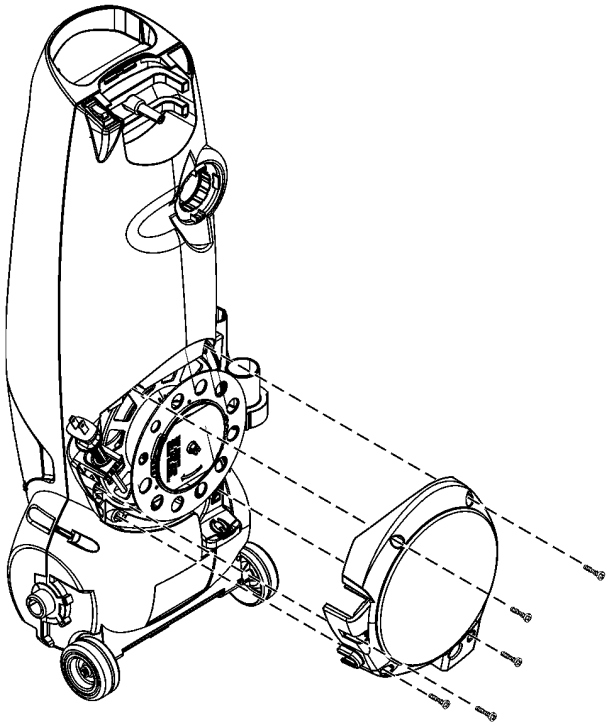
3.7. Cord Reel Replacement

3.7.1. Removal

1. Remove the cover and dust cover as outlined in MOTOR REPLACEMENT section.
2. Cut black and white cord lead wires just below the wire connector.
3. Turn unit over, remove five (5) screws and cord reel cover.
4. Remove cord reel.

3.7.2. Installation

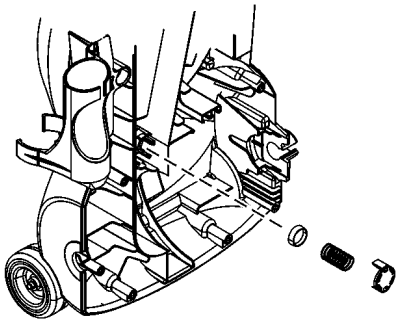
1. Replace cord reel. Insert black and white cord reel lead wires through the opening in the dust container.
2. Align cord reel into dust container and postion the rubber wheel on the rewind pedal to the body of the cord reel.
3. Reintsall cord reel cover.
4. Turn unit over and connect black and white lead wire connections using a wire nut.
5. Reinstall the cover and dust cover as outlined in MOTOR REPLACEMENT section.



3.8. Motor Protector Replacement

3.8.1. Removal

1. Remove the cover and dust cover as outlined in MOTOR REPLACEMENT section.
2. Remove the motor protector cover by prying out with a flat screwdriver.



3.8.2. Installation

1. Reinstall the motor protector placing the protector into the dust compartment followed by the spring. Then align the two tabs with the slots in the dust compartment by applying pressure and snap the cover into place.